

1 WHAT IS CLAIMED IS

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1. A liquid crystal display device,
comprising:

 a first substrate;

 a second substrate facing said first
10 substrate;

 a liquid crystal layer interposed between
said first and second substrates; and

 a group of electrodes disposed on said first
substrate so as to create an electric field in said
15 liquid crystal layer generally parallel to said first
substrate in an activated state in which a drive
voltage is applied to said group of electrodes;

 said liquid crystal molecules aligning
generally perpendicularly to a plane of said first
20 substrate in a non-activated state in which said drive
voltage is not applied to said group of electrodes,
said liquid crystal molecules aligning generally
parallel to said plane of said first substrate in said
activated state;

25 said liquid crystal molecules having a pre-
tilt angle of less than 90° in at least one of a part
of said liquid crystal layer corresponding to a pixel
and said electrode on said first substrate.

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 2. A liquid crystal display device as
claimed in claim 1, wherein said electrodes include a
35 first electrode provided on a surface of said first
substrate facing said second substrate and a second
electrode provided on said surface with a separation

1 from said first electrode, and wherein said liquid
crystal display device further includes a first
projection provided on said first electrode and a
second projection provided on said second electrode,
5 said first and second projections inducing said pre-
tilt angle in said liquid crystal molecules locating
adjacent to said first and second projections.

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3. A liquid crystal display device as
claimed in claim 2, further including a third
projection on a surface of said second substrate
15 facing said first substrate.

20 4. A liquid crystal display device,
comprising:
a first substrate;
a second substrate facing said first
substrate;
25 a liquid crystal layer interposed between
said first and second substrates; and
a group of electrodes disposed on said first
substrate so as to create an electric field in said
liquid crystal layer generally parallel to said first
30 substrate in an activated state in which a drive
voltage is applied to said group of electrodes;
said liquid crystal molecules aligning
generally perpendicularly to a plane of said first
substrate in a non-activated state in which said drive
35 voltage is not applied to said group of electrodes,
said liquid crystal molecules aligning generally
parallel to said plane of said first substrate in said

1 activated state;

 said liquid crystal layer having a
birefringence larger than about 0.10 but smaller than
about 0.25.

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 5. A liquid crystal display device as
10 claimed in claim 4, wherein said liquid crystal layer
contains a tolan-family component.

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